



ENTERED

OIPE

RAW SEQUENCE LISTING

DATE: 10/31/2002

PATENT APPLICATION: US/10/054,616A

TIME: 17:06:19

Input Set: A:\033072-022.ST25.txt

Output Set: N:\CRF4\10312002\J054616A.raw

```

3 <110> APPLICANT: Barak, Larry S.
4      Oakley, Robert H.
5      Caron, Marc G.
6      Laporte, Stephane A.
7      Wilbanks, Alyson
9 <120> TITLE OF INVENTION: Constitutively Desensitized G Protein-Coupled Receptors
11 <130> FILE REFERENCE: 033072-022
13 <140> CURRENT APPLICATION NUMBER: US 10/054,616A
14 <141> CURRENT FILING DATE: 2002-01-22
16 <150> PRIOR APPLICATION NUMBER: US 60/263,406
17 <151> PRIOR FILING DATE: 2001-01-23
19 <160> NUMBER OF SEQ ID NOS: 12
21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 371
25 <212> TYPE: PRT
26 <213> ORGANISM: Homo sapiens
28 <400> SEQUENCE: 1
29 Met Leu Met Ala Ser Thr Thr Ser Ala Val Pro Gly His Pro Ser Leu
30 1 5 10 15
31 Pro Ser Leu Pro Ser Asn Ser Ser Gln Glu Arg Pro Leu Asp Thr Arg
32 20 25 30
33 Asp Pro Leu Leu Ala Arg Ala Glu Leu Ala Leu Leu Ser Ile Val Phe
34 35 40 45
35 Val Ala Val Ala Leu Ser Asn Gly Leu Val Leu Ala Ala Leu Ala Arg
36 50 55 60
37 Arg Gly Arg Arg Gly His Trp Ala Pro Ile His Val Phe Ile Gly His
38 65 70 75 80
39 Leu Cys Leu Ala Asp Leu Ala Val Ala Leu Phe Gln Val Leu Pro Gln
40 85 90 95
41 Leu Ala Trp Lys Ala Thr Asp Arg Phe Arg Gly Pro Asp Ala Leu Cys
42 100 105 110
43 Arg Ala Val Lys Tyr Leu Gln Met Val Gly Met Tyr Ala Ser Ser Tyr
44 115 120 125
45 Met Ile Leu Ala Met Thr Leu Asp His His Arg Ala Ile Cys Arg Pro
46 130 135 140
47 Met Leu Ala Tyr Arg His Gly Ser Gly Ala His Trp Asn Arg Pro Val
48 145 150 155 160
49 Leu Val Ala Trp Ala Phe Ser Leu Leu Leu Ser Leu Pro Gln Leu Phe
50 165 170 175
51 Ile Phe Ala Gln Arg Asn Val Glu Gly Gly Ser Gly Val Thr Asp Cys
52 180 185 190
53 Trp Ala Cys Phe Ala Glu Pro Trp Gly Arg Arg Thr Tyr Val Thr Trp

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/054,616A

DATE: 10/31/2002

TIME: 17:06:19

Input Set : A:\033072-022.ST25.txt

Output Set: N:\CRF4\10312002\J054616A.raw

```

54          195          200          205
55 Ile Ala Leu Met Val Phe Val Ala Pro Thr Leu Gly Ile Ala Ala Cys
56          210          215          220
57 Gln Val Leu Ile Phe Arg Glu Ile His Ala Ser Leu Val Pro Gly Pro
58 225          230          235          240
59 Ser Glu Arg Pro Gly Gly Arg Arg Arg Gly Arg Arg Thr Gly Ser Pro
60          245          250          255
61 Gly Glu Gly Ala His Val Ser Ala Ala Val Ala Lys Thr Val Arg Met
62          260          265          270
63 Thr Leu Val Ile Val Val Val Tyr Val Leu Cys Trp Ala Pro Phe Phe
64          275          280          285
65 Leu Val Gln Leu Trp Ala Ala Trp Asp Pro Glu Ala Pro Leu Glu Gly
66          290          295          300
67 Ala Pro Phe Val Leu Leu Met Leu Leu Ala Ser Leu Asn Ser Cys Thr
68 305          310          315          320
69 Asn Pro Trp Ile Tyr Ala Ser Phe Ser Ser Ser Val Ser Ser Glu Leu
70          325          330          335
71 Arg Ser Leu Leu Cys Cys Ala Arg Gly Arg Thr Pro Pro Ser Leu Gly
72          340          345          350
73 Pro Gln Asp Glu Ser Cys Thr Thr Ala Ser Ser Ser Leu Ala Lys Asp
74          355          360          365
75 Thr Ser Ser
76          370
77 <210> SEQ ID NO: 2
78 <211> LENGTH: 515
79 <212> TYPE: PRT
80 <213> ORGANISM: Golden hamster
81 <400> SEQUENCE: 2
82 Met Asn Pro Asp Leu Asp Thr Gly His Asn Thr Ser Ala Pro Ala Gln
83          5          10          15
84 Trp Gly Glu Leu Lys Asp Ala Asn Phe Thr Gly Pro Asn Gln Thr Ser
85          20          25          30
86 Ser Asn Ser Thr Leu Pro Gln Leu Asp Val Thr Arg Ala Ile Ser Val
87          35          40          45
88 Gly Leu Val Leu Gly Ala Phe Ile Leu Phe Ala Ile Val Gly Asn Ile
89          50          55          60
90 Leu Val Ile Leu Ser Val Ala Cys Asn Arg His Leu Arg Thr Pro Thr
91          65          70          75          80
92 Asn Tyr Phe Ile Val Asn Leu Ala Ile Ala Asp Leu Leu Leu Ser Phe
93          85          90          95
94 Thr Val Leu Pro Phe Ser Ala Thr Leu Glu Val Leu Gly Tyr Trp Val
95          100          105          110
96 Leu Gly Arg Ile Phe Cys Asp Ile Trp Ala Ala Val Asp Val Leu Cys
97          115          120          125
98 Cys Thr Ala Ser Ile Leu Ser Leu Cys Ala Ile Ser Ile Asp Glu Tyr
99          130          135          140
100 Ile Gly Val Arg Tyr Ser Leu Gln Tyr Pro Thr Leu Val Thr Arg Arg
101          145          150          155          160
102 Lys Ala Ile Leu Ala Leu Leu Ser Val Trp Val Leu Ser Thr Val Ile

```

RAW SEQUENCE LISTING

DATE: 10/31/2002

PATENT APPLICATION: US/10/054,616A

TIME: 17:06:19

Input Set : A:\033072-022.ST25.txt

Output Set : N:\CRF4\10312002\J054616A.raw

```

106          165          170          175
107 Ser Ile Gly Pro Leu Leu Gly Trp Lys Glu Pro Ala Pro Asn Asp Asp
108          130          185          190
109 Lys Glu Cys Gly Val Thr Glu Glu Pro Phe Tyr Ala Leu Phe Ser Ser
110          195          200          205
111 Leu Gly Ser Phe Tyr Ile Pro Leu Ala Val Ile Leu Val Met Tyr Cys
112          210          215          220
113 Arg Val Tyr Ile Val Ala Lys Arg Thr Thr Lys Asn Leu Glu Ala Gly
114 225          230          235          240
115 val met Lys Glu Met Ser Asn Ser Lys Glu Leu Thr Leu Arg Ile His
116          245          250          255
117 Ser Lys Asn Phe His Glu Asp Thr Leu Ser Ser Thr Lys Ala Lys Gly
118          260          265          270
119 His Asn Pro Arg Ser Ser Ile Ala Val Lys Leu Phe Lys Phe Ser Arg
120          275          280          285
121 Glu Lys Lys Ala Ala Lys Thr Leu Gly Ile Val Val Gly Met Phe Ile
122          290          295          300
123 Leu Cys Trp Leu Pro Phe Phe Ile Ala Leu Pro Leu Gly Ser Leu Phe
124 305          310          315          320
125 Ser Thr Leu Lys Pro Pro Asp Ala Val Phe Lys Val Val Phe Trp Leu
126          325          330          335
127 Gly Tyr Phe Asn Ser Cys Leu Asn Pro Ile Ile Tyr Pro Cys Ser Ser
128          340          345          350
129 Lys Glu Phe Lys Arg Ala Phe Met Arg Ile Leu Gly Cys Glu Cys Arg
130          355          360          365
131 Ser Gly Arg Arg Arg Arg Arg Arg Arg Arg Arg Leu Gly Ala Cys Ala Tyr
132          370          375          380
133 Thr Tyr Arg Pro Trp Thr Arg Gly Gly Ser Leu Glu Arg Ser Gln Ser
134 385          390          395          400
135 Arg Lys Asp Ser Leu Asp Asp Ser Gly Ser Cys Met Ser Gly Ser Gln
136          405          410          415
137 Arg Thr Leu Pro Ser Ala Ser Pro Ser Pro Gly Tyr Leu Gly Arg Gly
138          420          425          430
139 Ala Gln Pro Pro Leu Glu Leu Cys Ala Tyr Pro Glu Trp Lys Ser Gly
140          435          440          445
141 Ala Leu Leu Ser Leu Pro Glu Pro Pro Gly Arg Arg Gly Arg Leu Asp
142          450          455          460
143 Ser Gly Pro Leu Phe Thr Phe Lys Leu Leu Gly Glu Pro Glu Ser Pro
144 465          470          475          480
145 Gly Thr Glu Gly Asp Ala Ser Asn Gly Gly Cys Asp Ala Thr Thr Asp
146          485          490          495
147 Leu Ala Asn Gly Gln Pro Gly Phe Lys Ser Asn Met Pro Leu Ala Pro
148          500          505          510
149 Gly His Phe
150          515
151 <210> SEQ ID NO: 3
152 <211> LENGTH: 515
153 <212> TYPE: PRT
154 <213> ORGANISM: Golden hamster

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/054,616A

DATE: 10/31/2002

TIME: 17:06:19

Input Set : A:\033072-022.ST25.txt

Output Set : N:\CRF4\10312002\J054616A.raw

158 <400> SEQUENCE: 3

```

159 Met Asn Pro Asp Leu Asp Thr Gly His Asn Thr Ser Ala Pro Ala Gln
160 1 5 10 15
161 Trp Gly Glu Leu Lys Asp Ala Asn Phe Thr Gly Pro Asn Gln Thr Ser
162 20 25 30
163 Ser Asn Ser Thr Leu Pro Gln Leu Asp Val Thr Arg Ala Ile Ser Val
164 35 40 45
165 Gly Leu Val Leu Gly Ala Phe Ile Leu Phe Ala Ile Val Gly Asn Ile
166 50 55 60
167 Leu Val Ile Leu Ser Val Ala Cys Asn Arg His Leu Arg Thr Pro Thr
168 65 70 75 80
169 Asn Tyr Phe Ile Val Asn Leu Ala Ile Ala Asp Leu Leu Leu Ser Phe
170 85 90 95
171 Thr Val Leu Pro Phe Ser Ala Thr Leu Glu Val Leu Gly Tyr Trp Val
172 100 105 110
173 Leu Gly Arg Ile Phe Cys Asp Ile Trp Ala Ala Val Asp Val Leu Cys
174 115 120 125
175 Cys Thr Ala Ser Ile Leu Ser Leu Cys Ala Ile Ser Ile Asp Ala Tyr
176 130 135 140
177 Ile Gly Val Arg Tyr Ser Leu Gln Tyr Pro Thr Leu Val Thr Arg Arg
178 145 150 155 160
179 Lys Ala Ile Leu Ala Leu Leu Ser Val Trp Val Leu Ser Thr Val Ile
180 165 170 175
181 Ser Ile Gly Pro Leu Leu Gly Trp Lys Glu Pro Ala Pro Asn Asp Asp
182 180 185 190
183 Lys Glu Cys Gly Val Thr Glu Glu Pro Phe Tyr Ala Leu Phe Ser Ser
184 195 200 205
185 Leu Gly Ser Phe Tyr Ile Pro Leu Ala Val Ile Leu Val Met Tyr Cys
186 210 215 220
187 Arg Val Tyr Ile Val Ala Lys Arg Thr Thr Lys Asn Leu Glu Ala Gly
188 225 230 235 240
189 Val Met Lys Glu Met Ser Asn Ser Lys Glu Leu Thr Leu Arg Ile His
190 245 250 255
191 Ser Lys Asn Phe His Glu Asp Thr Leu Ser Ser Thr Lys Ala Lys Gly
192 260 265 270
193 His Asn Pro Arg Ser Ser Ile Ala Val Lys Leu Phe Lys Phe Ser Arg
194 275 280 285
195 Glu Lys Lys Ala Ala Lys Thr Leu Gly Ile Val Val Gly Met Phe Ile
196 290 295 300
197 Leu Cys Trp Leu Pro Phe Phe Ile Ala Leu Pro Leu Gly Ser Leu Phe
198 305 310 315 320
199 Ser Thr Leu Lys Pro Pro Asp Ala Val Phe Lys Val Val Phe Trp Leu
200 325 330 335
201 Gly Tyr Phe Asn Ser Cys Leu Asn Pro Ile Ile Tyr Pro Cys Ser Ser
202 340 345 350
203 Lys Glu Phe Lys Arg Ala Phe Met Arg Ile Leu Gly Cys Gln Cys Arg
204 355 360 365
205 Ser Gly Arg Arg Arg Arg Arg Arg Arg Arg Arg Leu Gly Ala Cys Ala Tyr
206 370 375 380

```

RAW SEQUENCE LISTING

DATE: 10/31/2002

PATENT APPLICATION: US/10/054,616A

TIME: 17:06:19

Input Set: A:\033072-022.ST25.txt

Output Set: N:\CRF4\10312002\J054616A.raw

```

207 Thr Tyr Arg Pro Trp Thr Arg Gly Gly Ser Leu Glu Arg Ser Gln Ser
208 385 390 395 400
209 Arg Lys Asp Ser Leu Asp Asp Ser Gly Ser Cys Met Ser Gly Ser Gln
210 405 410 415
211 Arg Thr Leu Pro Ser Ala Ser Pro Ser Pro Gly Tyr Leu Gly Arg Gly
212 420 425 430
213 Ala Gln Pro Pro Leu Glu Leu Cys Ala Tyr Pro Glu Trp Lys Ser Gly
214 435 440 445
215 Ala Leu Leu Ser Leu Pro Glu Pro Pro Gly Arg Arg Gly Arg Leu Asp
216 450 455 460
217 Ser Gly Pro Leu Phe Thr Phe Lys Leu Leu Gly Glu Pro Glu Ser Pro
218 465 470 475 480
219 Gly Thr Glu Gly Asp Ala Ser Asn Gly Gly Cys Asp Ala Thr Thr Asp
220 485 490 495
221 Leu Ala Asn Gly Gln Pro Gly Phe Lys Ser Asn Met Pro Leu Ala Pro
222 500 505 510
223 Gly His Phe
224 515
227 <210> SEQ ID NO: 4
228 <211> LENGTH: 515
229 <212> TYPE: PRT
230 <213> ORGANISM: Golden hamster
232 <400> SEQUENCE: 4
233 Met Asn Pro Asp Leu Asp Thr Gly His Asn Thr Ser Ala Pro Ala Gln
234 1 5 10 15
235 Trp Gly Glu Leu Lys Asp Ala Asn Phe Thr Gly Pro Asn Gln Thr Ser
236 20 25 30
237 Ser Asn Ser Thr Leu Pro Gln Leu Asp Val Thr Arg Ala Ile Ser Val
238 35 40 45
239 Gly Leu Val Leu Gly Ala Phe Ile Leu Phe Ala Ile Val Gly Asn Ile
240 50 55 60
241 Leu Val Ile Leu Ser Val Ala Cys Asn Arg His Leu Arg Thr Pro Thr
242 65 70 75 80
243 Asn Tyr Phe Ile Val Asn Leu Ala Ile Ala Asp Leu Leu Leu Ser Phe
244 85 90 95
245 Thr Val Leu Pro Phe Ser Ala Thr Leu Glu Val Leu Gly Tyr Trp Val
246 100 105 110
247 Leu Gly Arg Ile Phe Cys Asp Ile Trp Ala Ala Val Asp Val Leu Cys
248 115 120 125
249 Cys Thr Ala Ser Ile Leu Ser Leu Cys Ala Ile Ser Ile Asp His Tyr
250 130 135 140
251 Ile Gly Val Arg Tyr Ser Leu Gln Tyr Pro Thr Leu Val Thr Arg Arg
252 145 150 155 160
253 Lys Ala Ile Leu Ala Leu Leu Ser Val Trp Val Leu Ser Thr Val Ile
254 165 170 175
255 Ser Ile Gly Pro Leu Leu Gly Trp Lys Glu Pro Ala Pro Asn Asp Asp
256 180 185 190
257 Lys Glu Cys Gly Val Thr Glu Glu Pro Phe Tyr Ala Leu Phe Ser Ser
258 195 200 205

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/054,616A

DATE: 10/31/2002

TIME: 17:06:20

Input Set : A:\033072-022.ST25.txt

Output Set: N:\CRF4\10312002\J054616A.raw